

*Asbestos and Environmental Reserves Increases  
and Shareholder Wealth*

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## **Asbestos and Environmental Reserves Increases and Shareholder Wealth**

### **Abstract**

Between 1992 and 2000, significant reserves increase announcements were made by several major property/liability insurers. These reserves increases were for the purpose of funding expected asbestos and environmental liability. Although most analysts agree that U.S. insurers are underreserved for asbestos and environmental liability, how the market reacts to an insurer's announcement of an increase in these reserves has not been analyzed. An insurer that is significantly underreserved is likely to be viewed by the market as lacking financial stability for the long term. However, when a company increases its reserves there is a charge to income and a reduction in capital. If surplus is diminished sufficiently as a result of the increased reserving, regulatory attention and eroding shareholder and market confidence could result as well. The goal of this study is twofold. First, by calculating the sample insurers' cumulative abnormal returns surrounding the largest asbestos and environmental reserves increase announcements made between 1992 and 2000, the study estimates and documents the market's reaction to these reserves increase announcements. Second, by considering the market reaction for both announcing and non-announcing firms, the study seeks to evaluate the reasons for this reaction. Using market data for both announcing and non-announcing insurers with potential environmental exposure provides a useful paradigm for identifying the most likely explanation for the market's reaction to the announcements of environmental reserves increases.

When looking at reserves increase announcements from 1992 to 1995, we find that most insurers announcing large increases in asbestos and environmental reserves experience a significant reduction in stock price in the days surrounding the announcement. During the period 1996 to 2000, a period during which additional information disclosures of A & E payments and reserves were required of insurers, many of the announcing insurers saw little impact on their stock prices. We find some evidence that the additional required accounting disclosures provided valuable valuation information to the market. We also find that with the exception of the largest announcement, the stock price reaction is isolated to the announcing firm, indicating that the announcement by one firm does not impact the market's assessment of the entire industry.

## Asbestos and Environmental Reserves Increases and Shareholder Wealth

### Introduction

During 1992 and 1993, four insurers (ITT Hartford, Aetna, CNA and Travelers) announced significant reserves increases for the purpose of funding expected asbestos and environmental (A&E) liability. In addition, over a period of four months during 1995, four other reserves increase announcements were made by Swiss Re America, Fireman's Fund, Aetna, and Cigna. Also, during this same period, CNA acquired Continental Corporation and Zurich Insurance Group acquired Home Holdings, both acquisitions prompted at least in part by A & E liability problems of the targeted firms. Alan Levin, managing director of Standard and Poor's described the events of 1995 collectively as "perhaps the most significant event in the property/casualty industry in decades."<sup>1</sup> Later in 1995, Nationwide followed with the announcement of an increase in its A & E liability reserves as well.<sup>2</sup>

Although most analysts agree that U.S. insurers are underreserved for A & E liability,<sup>3</sup> how the market reacts to an insurer's announcement of an increase in A & E reserves remains unclear. An insurer that is significantly underreserved is likely to be viewed by the market as lacking financial stability for the long term. However, when a company increases its A & E liability reserves there is a charge to income and a reduction in reported capital. If surplus is diminished

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<sup>1</sup> Aetna's reserving turns up pressure, *Business Insurance*, July 17, 1995, p. 1.

<sup>2</sup> An extensive search for the reserves increase announcements made through 1995 has been conducted. For the period 1996 through 2000 a preliminary investigation into A & E reserves announcements suggests that there were eighteen significant announcements made during this period that also are relevant and will be included in the study.

<sup>3</sup> In 1995, Standard and Poor's (S&P) and Tillinghast estimated that U.S. insurers' environmental liability - including amounts already paid or reserved - was somewhere between \$40 and \$60 billion. S&P also estimated that the total amount reserved by U.S. insurers for this exposure was around \$12 billion (Lenckus, 1995). A.M. Best analysts later reported in 1998 that net asbestos and environmental reserves were deficient by approximately \$41 billion (Sclafane, 1998). While by 2000, Best has not had an opportunity to revisit ultimate loss estimates since 1997, they state that "intuitively, [they] do not think insurers are that close to being fully funded [for asbestos and environmental liability]" (Sclafane, 2000).

sufficiently as a result of the reserving, regulatory attention and eroding shareholder and market confidence could result as well. Yet, Sean Mooney, former senior vice president at the Insurance Information Institute, stated that “the reduction in capital [as a result of increasing environmental reserves] can be viewed as positive as it removes some of the excess ‘paper’ capital from the industry, and thus can lead to firmer pricing.”<sup>4</sup>

The goal of this study is twofold. First, the study estimates and documents the market’s reaction to the reserves increase announcements made between 1992 and 2000.<sup>5</sup> The announcement of a reserves increase could have one of three effects on the market price of insurers with A & E liability exposure: 1) a statistically significant positive effect; 2) a statistically significant negative effect; or 3) no significant effect. Each outcome contains specific information about the market’s ability to detect understated reserves and the value assigned to changes in loss reserves. Although some anecdotal evidence currently exists, the market reaction to changes in A & E reserves has not been statistically assessed. Second, by considering the market reaction for both announcing and non-announcing firms, the study seeks to evaluate the reasons for this reaction. Using market data for both announcing and non-announcing insurers with potential A & E exposure provides a useful paradigm for identifying the most likely explanation for the reaction to the announcements of A & E reserves increases. This provides a unique opportunity to evaluate the information effect associated with these dramatic announcements.

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<sup>4</sup> Insurer Glasses Are Both Half Full and Half Empty, *National Underwriter (Property/Casualty Edition)*, October 24, 1994, p. 43.

<sup>5</sup> Market price data are not available for mutual insurers. However, announcements made by mutual insurers will be used in the portion of the analysis where the price reaction of non-announcing firms is evaluated.

The impact of A & E reserves increases on the market value of insurers has become an increasingly important issue for regulators with the introduction of Footnote 24 by the NAIC (see Simpson, 1996)<sup>6</sup>. Starting with 1995 filings (which were made public in 1996), insurers are required to provide a five-year history of environmental reserves and claim payments. Given that our study includes announcements made over the period 1992 to 2000, the results will allow us to determine if the information provided as a result of Footnote 24 has changed the way in which the market interprets the reserves announcements made by insurers. This enables us to construct a meaningful test of the value of this additional information disclosure that has been mandated by the regulators.

The remainder of the study is divided into five sections. The next section of the paper provides a brief review of the prior research related to this study. This is followed by discussions related to the data, as well as the methodology and hypotheses used in the paper. The results of the paper are presented and the conclusions and implications of the study are outlined in the final two sections.

### **Prior Literature**

Event study methodologies similar to the one used in this paper have been used to assess the overall impact of a variety of issues on shareholder wealth. Examples of these issues include: regulatory changes (Chen and D'Arcy, 1986; Moore and Schmit, 1987; and Horton and Macve, 1998), changes in business strategies (VanDerhei, 1987; Alahegbe, Borde, and Madura, 1993; and McNamara, 1997), as well as the reporting of increases in liabilities or large losses (Sprecher and Pertel, 1983; Davidson, Chandy, and Cross, 1987; Baginski, Carbeth, and Oleega, 1991; Lamb,

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<sup>6</sup> Although when the new reporting requirements were introduced the A&E reserves exhibit was referred to as Footnote 24, subsequent additions have resulted in the actual footnote number varying from year to year in the annual statement blank. Our reference here to Footnote 24 is to the NAIC's requirement that the reporting insurer provide

1995; and Cagle, 1996). This framework allows us to determine whether the announcement contains new, valuable information for the shareholders. If the announcement conveys new information that changes investors' views of the firm's value, then there will be a significant change in the stock price around the announcement. If investors had already built the information into their assessment of the firm's value, or if it will not have a meaningful impact on the firm's value, then there will not be a significant change in the stock price. As stated earlier, industry analysts have publicly stated that insurers are viewed as being dramatically underreserved in the area of A & E liability (Sclafane, 1998; Sclafane, 2000).<sup>7</sup> Based on this fact, it is questionable as to whether new information will be conveyed in these announcements. Event study methodologies also create a means to quantify how the market perceives the announcement. As mentioned earlier, investors could view the announcement of the increase in A & E reserves as an event that either increases or decreases the firm's value.

In addition to assessing the impact on the announcing firm, other authors have used event study methodologies to assess the impact of announcements on other firms in the industry. For example, Fenn and Cole (1994) investigate the impact that the announcements related to the investment problems at First Executive and Travelers had on the stock prices of other life insurers.

The decision to manage loss reserves in an effort to achieve financial goals also has been documented in several studies. For example, Grace (1990) and Gaver and Paterson (1999) find that insurers have incentives to overstate loss reserves in an effort to reduce tax liabilities. On the other

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information on its five-year historical pattern of payments and reserves for environmental exposures.

<sup>7</sup> In a 2001 study, A. M. Best estimates property-liability insurers will ultimately incur more than \$121 billion in net A&E losses. It projects that the industry's unfunded asbestos position is \$33 billion and environmental exposures are underfunded by \$24 billion.

hand, financially troubled firms often understate loss reserves in an effort to reduce the level of regulatory scrutiny (see Petroni, 1992 and Gaver and Paterson, 1999). Incentives to smooth earnings through managing loss reserves are documented by Weiss (1985) and Grace (1990). Additionally, Nelson (2000) comments that insurers implicitly discount loss reserves to reflect the time value of money. In this case, insurers making large changes in A & E loss reserves face these same financial implications from their adjustments. Given insurance companies' incentives to manipulate loss reserves to achieve a variety of financial goals, there is some question as to the degree of credibility that a reserves increase announcement will have with investors. Christensen, Hoyt, and Paterson (1999) comment that the credibility placed on insurers' earnings announcements is tempered by the level of ability and the incentives managers have to manage earnings.

Also, prior researchers have argued that due to high monitoring costs investors holding the equity of financial firms (i.e., banks and insurance companies) are "rationally uninformed" about the quality of their assets and liabilities. Polonchek and Miller (1996) empirically demonstrate that the level of these information asymmetries is even higher for insurance companies than for commercial banks. Fenn and Cole (1994) and Avila and Eastman (1995) provide additional evidence that investors are relatively uninformed regarding insurer asset quality and, hence, new information is likely to have valuation relevance. For property-liability insurers the heterogeneity and complexity of the risk assumed, as well as the considerable managerial discretion available in setting reserves, arguably contributes to even greater information asymmetries with respect to the firm's liabilities. These factors make the insurance industry an especially interesting environment in which to evaluate the relevance of public information releases such as reserves increases. We anticipate increased relevance relative to firms in non-financial industries and would expect reserves adjustment



announcements during periods of increased uncertainty to be especially relevant to the valuation of security prices.

**Data**

For our analysis we calculate the sample insurers' cumulative abnormal returns surrounding the A & E reserves increase announcements made between 1992 and 2000. The sample of insurers includes those firms that in 1985 were writing "other liability" insurance, which includes environmental liability and comprehensive general liability (CGL) policies.<sup>8</sup> This information is available on the *National Association of Insurance Commissioners (NAIC)* data tapes. This group of insurers is compared to a listing of insurers whose stock is currently traded on one of the open exchanges. Then the list is compared with information from *Best's Review* regarding the "50 Largest Writers of Other Liability Insurance" for the years 1985, 1975 and 1967. Additionally, the list was compared to the set of insurers with A & E exposures that were analyzed in a study by Standard & Poor's (1995). The final sample of insurers includes 25 publicly-traded insurers that had potential exposure to A & E liability. We believe that insurers entering the A & E liability lines of insurance after 1985 are not likely to announce significant revisions in their A & E loss reserves during the 1990's. This expectation is based on the fact that pollution exclusions substantially limited A & E exposures arising from policies written after 1985.

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<sup>8</sup> 1985 was chosen since most commercial liability policies were modified to contain so-called "absolute" pollution exclusions after 1985. The name of the CGL was changed effective in 1986 from "comprehensive" general liability to the "commercial" general liability policy.

The environmental liability exposure information (volume of “other liability” insurance written) is obtained from the 1985 *National Associations of Insurance Companies (NAIC) Database*. Data regarding the 1992 through 2000 event dates and other announcements related to the sample insurers have been identified through a *Lexis/Nexis* search of the *Wall Street Journal*, *Business Insurance* and the *National Underwriter (Property/Casualty Edition)*. Finally, preliminary stock price data have been collected from the *Center for Research in Security Prices (CRSP)* data tapes.

Table 1 provides a complete listing of firms included in the sample and Table 2 provides a listing of the announcement dates and the amount of the reserves changes for the announcing firms in our sample. In our study we identified 16 announcements made by 12 firms during the years 1992 through 2000. The reserves increases ranged from \$134 million to \$1.5 billion. Of the total number of firms in the sample, 40 percent (10 out of 25 – the other two announcing firms are not publicly traded) announced an increase in A & E reserves during the time period.

### **Methodology**

In the empirical analysis, firms are designated as announcing firms for event dates for which they announced a change in A & E loss reserves. All other firms are designated as non-announcing firms for that event data. In order to determine if an announcement had a significant impact on the shareholders wealth, the following methodology is utilized.

First, the expected returns for each insurer are estimated by fitting the market model given in equation (1) to the insurer’s historical returns.

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}, \quad t = 1, \dots, T, \quad (1)$$

where

- $R_{it}$  = return on shares of insurer  $i$  at time  $t$ ,  $(Price_{t+1} - Price_t + Dividend)/Price_t$ ,
- $R_{mt}$  = the CRSP equally-weighted market return at time  $t$ ,
- $\alpha_i$  = a coefficient representing the return of insurer  $i$  that is independent of the market,
- $\beta_i$  = a constant representing the market sensitivity of insurer  $i$ ,
- $T$  = number of time periods,
- $\epsilon_{it}$  = an error term.

We estimate all market model parameters using OLS regression analysis over a one-year estimation period up to day  $-5$  (e.g., five days before the announcement), relative to the reserves adjustment announcement date and employ the CRSP equally weighted market index in market model regressions. This is done to develop an estimate of what the stock's return relative to the market would have been in absence of a major event.

Once the expected return is estimated, abnormal returns for each insurer are calculated by taking the difference between the insurer's actual returns and its expected returns, as shown in equation (2).

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt}) \tag{2}$$

Cumulative abnormal returns for each insurer are computed by summing the abnormal returns over an event window from  $t_1$  to  $t_2$ , as shown in equation (3).

$$CAR_i(t_1, t_2) = \sum_{t=t_1}^{t_2} AR_{it} \tag{3}$$

The cumulative abnormal returns for each firm are calculated for the two-day period from the day prior to the event date through the day of the event (days  $-1$  and  $0$ ). The procedure is followed for both the announcing firm and all of the non-announcing firms. T-tests (and non-parametric tests) are conducted to determine if the cumulative abnormal returns for each firm are statistically different

from zero. Significant changes in the firm's cumulative abnormal returns indicate that the market has revised its estimation of firm value based on the announcement.

### **Hypotheses Development**

As stated previously, the announcement of an increase in reserves could have any one of the following effects on the market price of an insurer with A & E liability exposure: 1) a statistically significant positive effect; 2) a statistically significant negative effect; or 3) no significant effect. Each outcome provides important information concerning the market's ability to detect the misstatement of loss reserves prior to the announcement, as well as the impact that the announcement has on firm value.

### ***Impact on Shareholder Wealth for the Announcing Firms***

Two hypotheses support a positive stock price reaction for an announcing firm. First, the market may reflect a prior overestimation of the expected A & E liability of an insurer and the reserves increase announcement indicates a lower expected assessment of liability by the insurer. Second, the market already has adjusted for the extent of potential environmental liability, but it expects the increase in reserves to result in a decrease in expected taxes and a resulting increase in firm value.<sup>9</sup>

The hypothesis supporting a negative stock price reaction of the announcing firm states that the market underestimated the A & E liability of the insurer and the announcement verifies a higher expected assessment of liability by the insurer. No significant stock price reaction suggests that the

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<sup>9</sup> Merritt Insurance Report (Jan 8, 1996, p. 12) states that "the IRS will announce its intent to investigate several insurers concerning "questionable" A & E loss reserve increases" and "will focus on whether or not these reserve increases were tax deferral or avoidance mechanisms."

market already has properly assessed the insurer's environmental liability and the insurer is simply recognizing a liability that was already fully discounted in the market price.

***Impact on Shareholder Wealth for Non-announcing Firms***

Interestingly, the effect of one firm's reserves adjustment announcement on the stock prices of other firms is likely to provide the most insight into the explanation for a stock price movement of the announcing firm. A positive or negative stock price movement around the event date of a firm that is not increasing its reserves suggests that the market misestimated the A & E liability for the entire industry and is adjusting stock prices of all insurers exposed to A & E liability to account for this misestimation. An increase of the stock price of the announcing firm coupled with no significant stock price movement for the non-announcing firms supports the previously stated tax deferral hypothesis. A decrease of the stock price of the announcing firm coupled with no significant stock price movement for the non-announcing firms would suggest that the announcement is providing new information to investors regarding the announcing firm, but is not affecting the market's overall assessment of A & E liability exposures for the industry.

The likelihood of a statistically significant price reaction, positive or negative, will be greater the more uncertainty investors face. In those situations additional information released to the market will be more likely to affect the market's assessment of firm values.

Table 3 provides a summary of the hypotheses related to the potential impact of the announcement of increases in A & E liability reserves on the market price of announcing and non-announcing firms.

**Results**

Due to the possible impact of the NAIC's increased disclosure requirements (Footnote 24), we review our results over the two periods 1992 to 1995 and 1996 to 2000. The NAIC's disclosure requirements were effective for 1995 annual statements which would have been available in early 1996. Cumulative abnormal returns for the announcing insurers are presented in Table 4. Four of the six announcements in 1992 to 1995 resulted in negative and significant CARs for the announcing insurers. These results suggest that the market determined that new and negative information on the announcing firms was introduced in these announcements. The largest of these CARs was associated with the announcement by CNA which represented the largest reserves increase announcement during the period of our study (\$1.5 billion).

During the period 1996 to 2000 three of the seven announcements resulted in negative CARs for the announcing insurers. However, one announcement, by Allstate, resulted in a positive CAR. Also, it should be noted that the second announcement by Reliance Group came when the insurer was already plunging into serious financial difficulties that ultimately resulted in its insolvency. Of particular interest in these results for the 1996 to 2000 period is the fact that the CARs for the first three announcements in 1996 were not negative and significant. These are the first announcements that occur after the Footnote 24 requirements were established. Given the statistically significant negative results for the announcing firms during the 1992 to 1995 period, the statistically insignificant results for these first three post-Footnote 24 announcements suggest that the information provided as a result of Footnote 24 is sufficient for the market to adequately assess the insurer's reserves position. However, while we would require more data to reach a solid conclusion, the statistically significant negative reaction to the AIG announcement in 2000 may signal that these

statutory statement disclosures are no longer sufficient for the market to formulate complete assessments of an insurer's A & E exposures.

While the shareholders of the announcing firms experienced a decrease in shareholder wealth, in most cases, the shareholders of non-announcing firms were not impacted. With the exception of the largest environmental liability announcement, non-announcing firms do not experience significant changes in stock price around the event dates. This suggests that the market viewed most of the announcements as providing information on the individual insurer and not on the market as a whole.

It is worth noting that the CNA announcement is the one that produced a statistically significant negative result for the non-announcing firms. Results associated with the CNA announcement are presented in Table 5. Not only was this announcement the largest of any of the sample announcements, it also occurred fairly early in the time period, only four months after the initial ITT Hartford announcement. Also, the CNA reserves announcement was reportedly tied to the company's decision to reach a settlement with an insured (Fibreboard) that was facing "tens of thousands of [asbestos-related] claims" (see Greenwald, 1993). The decision to reach a settlement with Fibreboard was prompted by a San Francisco Superior Court judge's ruling that each claim constituted a separate occurrence and that Chubb, the parent of another of Fibreboard's insurers, owed Fibreboard the duty to defend and indemnify them for each claim. Also contributing to the decision to settle was the "trend toward mass tort actions and consolidated litigation, which do not give the defendant the opportunity to adequately defend themselves because they are grouped with others" (Greenwald, 1993). It appears that it was not only the amount of the increase that prompted

the statistically significant negative result for the other insurers, but also the circumstances that reportedly led to the announcement.

We also employ cross-sectional regressions in which we measure the incremental effects of various characteristics of the firm (size, volume of A & E exposed insurance written, etc.) and of the announcements (size of adjustment, prior adjustments, etc.) on the magnitude of beta-adjusted returns. In this analysis we follow the approach of several prior event studies.<sup>10</sup> As an example of the construction of these cross-sectional regressions, one variable that is included on the right-hand side of the regressions of all announcements is a variable reflecting the A & E liability exposure of each of the sample insurers. Each insurer's exposure to A & E liability is measured by the percent of "other liability" insurance to total insurance written in 1985. This information is contained in Part 2 of the Underwriting and Investment Exhibit of the statutory annual statement. The insurers' cumulative abnormal returns are then regressed against the degree of environmental liability exposure in 1985 to determine the effect of the reserves increase announcements on the stock price of the firm. This was done in a multivariate framework so that a number of relevant factors can be assessed simultaneously. Thus far, the results of this additional analysis have been inconclusive.

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<sup>10</sup> See, for example, in an insurance context Baginski, Corbett, and Ortega (1991) and Marlett and Pacini (1999); and in a general context Schwert (1981) and Binder (1985).



**Conclusions and Implications**

While many industry experts have stated that the insurance industry is underreserved with respect to asbestos and environmental liability exposures, it appears that the market has not fully discounted firm value to reflect the potential understatement of liabilities. For the period 1992 to 1995, the majority of announcements of increased asbestos and environmental reserves were associated with a decrease in firm value for the announcing firm.

In reaction to concerns over the magnitude of A & E exposures and the adequacy of insurers' reserves for these exposures, the NAIC required with the filing of 1995 annual statement blanks that insurers provide additional information on A & E claims and reserves (the five-year exhibit that was initially referred to as Footnote 24). We find some empirical evidence that is consistent with the notion that the information made public by the Footnote 24 requirements is meaningful to the market.

However, with one notable exception, the A & E reserves increases did not result in a change in the market's assessment of firm values for the non-announcing insurers. Our results are consistent with the idea that public information releases will be most influential on the market's assessment of firm values when financial statement disclosures are inadequate (lack of transparency in accounting information) and when uncertainty is greatest.

Our findings have important implications for valuation actuaries. First, they show that the market is not consistently able to adequately detect large misstatements of loss reserves. This suggests that accurate reserves statements by actuaries are critical and that adjustments to erroneous ones do have an effect on the market's assessment of firm value. Second, faced with the potential reduction in firm value and possible increase in regulatory costs, insurers have the incentive to

understate or further delay the announcement of increased asbestos and environmental liability reserves. In reviewing reserves actuaries must be cognizant of this potential conflict in incentives.

After several years of relative quiet in the A & E area, 2001 saw a dramatic jump in the number of reserves increase announcements by insurers and concerns over the magnitude of insurers' A & E exposures (American Academy of Actuaries, 2001; Banham, 2001; Lemke, 2002). Due to data limitations we are not yet able to evaluate the 2001 announcements. Given the increased attention to and uncertainty associated with A & E liabilities, at some point it will be especially informative to extend the analysis in our study to the announcements made during 2001.

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**Table 1  
Sample Firms  
1992-2000**

<b>Announcing Firms</b>	<b>Non-announcing Firms</b>
<p align="center"> Aetna  Allstate Insurance Group  American International Group  American Reinsurance  Cigna  CNA  Fireman's Fund (Allianz)  ITT Hartford  Reliance Group  Travelers </p>	<p align="center"> American Financial Group  American General Group  Berkshire Hathaway  Chubb Group  Fremont Insurance Group  General Reinsurance Group  Home Insurance Group (Zurich Re)  Kemper National Group  Lincoln National Group  Ohio Casualty Group  Old Republic Group  Orion Group  St. Paul  TIG Insurance Group  United States Fidelity &amp; Guaranty </p>

**Table 2**  
**Event Dates for Years 1992 – 2000**

Event	Date	Amount of Increase
ITT Hartford	10/1/92	\$582M
Aetna	2/3/93	\$180M
CNA	2/8/93	\$1.5B
Travelers	10/14/93	\$325M
Swiss Re America	4/12/95	\$700M
Fireman's Fund	6/23/95	\$800M
Aetna	7/13/95	\$750M
Cigna	10/2/95	\$1.2B
Nationwide	12/12/95	\$1.1B
American Re	1/30/96	\$587M
Aetna	2/8/96	amount unknown
Reliance Group	6/27/96	\$134M
Allstate	10/9/96	\$245M
ITT Hartford	10/21/96	\$543M
Reliance Group	6/15/99	amount unknown
AIG	10/27/00	amount unknown

**Table 3**  
**Summary of Hypotheses**

<b>Impact on Stock Price</b>	<b>Announcing Firms</b>	<b>Non-announcing Firms</b>
<b>Positive</b>	<ul style="list-style-type: none"> <li>-The market over estimated the expected A&amp;E liability for the insurer</li> <li>-The market had adjusted for the expected A&amp;E liability but it expects that the announcement will decrease taxes</li> </ul>	-The market misestimated the A&E liability for the entire industry
<b>Negative</b>	-The market underestimated the A&E liability	-The market misestimated the A&E liability for the entire industry
<b>No Effect</b>	-The market has already properly assessed the insurers A&E liability	(If found with a positive move in stock price for the announcing firms this is supportive of the tax hypothesis)



**Table 4**  
**Cumulative Abnormal Returns for Announcing Insurers**  
**(Insurer's own announcement)**

Announcing Insurer	CAR (-1,0)	Event Date
Aetna	-.0285**	2/3/93
CNA	-.0352**	2/8/93
Travelers	.0012	10/14/93
Fireman's Fund (Allianz)	-.0056	6/23/95
Aetna	-.0254**	7/13/95
CIGNA	-.0108*	10/2/95
American Re	.0097	1/30/96
Aetna	-.0074	2/8/96
Reliance Group	.0017	6/27/96
Allstate	.0224**	10/9/96
ITT Hartford	-.0118*	10/21/96
Reliance Group	-.2222**	6/15/99
AIG	-.0532**	10/27/00
* CARs are significant at p=.05		
** CARs are significant at p=.01		

**Table 5**  
**Cumulative Abnormal Returns for the CNA Announcement**

<b>CNA Announcement (2/8/93)</b>	
<b>Insurer</b>	<b>CAR (-1,0)</b>
<b>Aetna</b>	<b>-.0109*</b>
<b>CNA</b>	<b>-.0352**</b>
<b>Travelers</b>	<b>-.0331**</b>
<b>CIGNA</b>	<b>-.0253**</b>
<b>Average CARs for other insurers</b>	<b>-.0111*</b>
<p>* CARs for these insurers are significant at p=.05  ** CARs for these insurers are significant at p=.01</p>	
<p><b>For the other 15 announcements the CARs for the announcing and non-announcing insurers are not statistically significant</b></p>	